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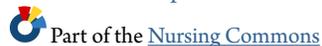
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2017

The effect of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A mixed-method study

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## **Chapter 3: Methodology**

### **3.1 Introduction**

As discussed in the previous chapters, despite the contemporary world's evolving healthcare and clinical practice advancements, certain challenges remain an issue, such as shortage of health workers, access to medical resources and keeping abreast with best practice to provide quality care. This is particularly apparent in resource-limited settings and countries, such as Africa. This study seeks to identify the perceptions of CPD in Tanzania of Western Australian NMs (WANMs) and the reality of CPD from the perspective of Tanzanian NMs (TNMs). Participants of the education programs offered by GHAWA were included in the research. To consider a suitable approach for this study, this chapter begins by examining the paradigm and the relevant approach used by the researcher. It also addresses the research design and rationale for the chosen methodology. Further, it outlines the strategies employed to ensure research rigour and the validity of the study.

The philosophy of conducting research first requires an understanding of the worldview of research, otherwise known as the paradigm, and the methods with which it may be conducted (Weaver & Olson, 2006). The literature shows that, depending on the enquiry, there can be more than one research paradigm and way to undertake research. Thus, the first question that had to be answered by the researcher was: what research stance is appropriate for the work being examined here? As such, this chapter presents details of the steps and methods undertaken in this study.

### **3.2 Paradigms for Nursing and Midwifery Research**

Paradigms are a set of beliefs or worldviews regarding the different approaches to conceptualising research (Creswell, 2015; Weaver & Olson, 2006). There are practices within a discipline that enable researchers to structure enquiry and bridge their philosophical assumptions with the chosen methodology (Weaver & Olson, 2006).

The positivistic and naturalistic paradigms are seen as two broad worldviews in nursing and midwifery research (Jirojwong, Johnson, & Welch, 2014; Keele, 2011). The positivistic paradigm—sometimes referred to as mainstream or traditional research—is

underpinned by quantitative methods conducted through scientific techniques, such as laboratory trials (Fraser, 2014; Jirojwong et al., 2014). However, the inability of the positivist approach to explore human experiences in a holistic manner led to the development of the naturalistic paradigm (Jirojwong et al., 2014). The naturalistic, or interpretative, paradigm emphasises understanding the meaning individuals ascribe to the actions and reactions of people's experiences (Weaver & Olson, 2006). This opposite paradigm paved the way for conducting qualitative research methods to explore phenomena as they occur in the natural setting and the lived experience of the participants (Jirojwong et al., 2014).

The literature suggests that research should possibly not be limited to only one paradigm (Creswell, 2015; Creswell & Plano Clark 2011; Stange, Crabtree, & Miller, 2006). The development of quantitative research then qualitative was followed by mixed-methods research, which is also referred to as the third research paradigm (Johnson & Onwuegbuzie, 2004, as cited in Creswell & Plano Clark, 2011). By taking a pragmatic position, mixed-methods research combines the quantitative and qualitative approaches, whereby Jirojwong et al. (2014) argued that the research question becomes more significant than the paradigm that generates the method. The combined approach in a single study can overcome the discrete weaknesses of each paradigm by activating their strengths, thereby complementing each other to generate new knowledge and provide fuller discernment of the study (Stange et al., 2006). The applicability of this approach is particularly beneficial for the purpose of this research study. A positivist view would have generated quantitative data that would limit the richness of the data that could be uncovered. Coupled with a naturalistic view through interviews (qualitative investigation), this study was able to extract valuable information from those who participated in the GHAWA program. This gave depth and meaning to the research.

The mixed-methods research process gathers both closed- and open-ended data by integrating the quantitative method of enquiry through statistical means, and the qualitative approach by using stories and personal experiences, to collectively provide depth of understanding in a study (Creswell, 2015). Beyond using a single research method alone, where one data source may be insufficient, the combination of two methods gives broader application and insight to the research question. Considering the methodological choices and nature of this study, the researcher felt that the combined

approach of the positivist and naturalist paradigms was most appropriate for this research investigation. The following sections describe how the chosen approach was implemented, and expand on both the quantitative and qualitative research methods applied in this study.

### **3.3 Mixed-methods Research and Design**

Mixed-methods research integrates quantitative with qualitative research methods and data such as personal experiences (Creswell, 2015). Their collective strength allows the researcher to interpret both sets of data to better understand research problems. Central to all mixed-methods projects are three designs. Each design can have a varied sequence on how to integrate the quantitative and qualitative databases. For example, the process may commence with performing quantitative methods first, followed by qualitative methods, or vice versa. Alternatively, the research can alternately combine the two methods together. The three common designs are described as follows.

#### **3.3.1 Explanatory Design**

The explanatory sequential design uses quantitative methods first, before proceeding with qualitative methods. Fischler (2013) explained that this design links the phases by using the quantitative results to purposefully select appropriate participants for the qualitative phase of the study.

#### **3.3.2 Exploratory Sequential Design**

The exploratory sequential design explores a project or problem by employing qualitative methods first, followed by quantitative methods, to develop an instrument that is not already available. The key is to decide on a systematic framework for approaching the research. Creswell (2015) and Fischler (2013) suggested asking ‘what method takes priority when collecting and analysing data?’ and to ‘consider the sequence to conduct the research’.

#### **3.3.3 Conventional Design**

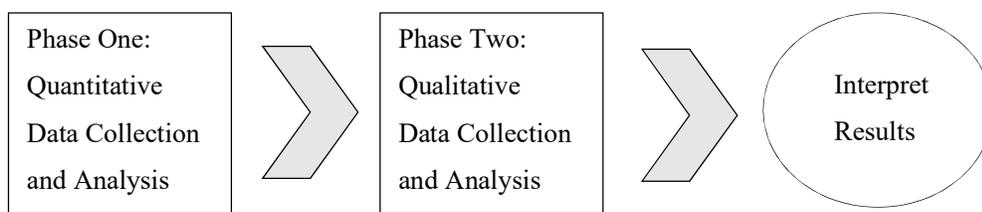
Creswell (2015) stated that the conventional design considers collecting both sets of quantitative and qualitative data together, followed by analysing and comparing both

datasets. This is undertaken when both sets of data need to be collected in one visit during the period of the study.

### **3.3.4 This Study Design**

Considering the methodological steps described earlier in this chapter, this study design of choice was an explanatory sequential design. This enabled the researcher to work through a progressive procedure to integrate quantitative data, followed by the use of qualitative methods to explain the results in more depth (Creswell, 2015). It was necessary to first identify and quantify the numbers, sites and participants, including those who were education facilitators and attendees of the GHAWA program. The grouping and analysis of the data then enabled the researcher to invite relevant participants—through appropriate sampling of relevant cohorts—to participate in a series of semi-structured focus group interviews. According to Creswell (2015), a mixed-methods approach employs pragmatic knowledge claims, which means the enquiry strategies incorporate sequential gathering of both numerical and textual information. Thus, the assumption of the enquiry is based on collecting a range of data that can best provide an understanding of the matter being researched (Creswell, 2015; Turner, Cardinal, & Burton, 2017). Bamberger et al. (2010) emphasised that, by drawing on quantitative values, conducted through mixed-methods research, qualitative data input can strengthen and better inform international development research regarding the influence and effectiveness of health interventions in the international context.

To identify the distribution of participants, determine the number of educational sessions provided by GHAWA for TNMs, and understand the effectiveness of the professional development following participation in CE programs, a mixed-method design combining quantitative and qualitative research was most suited for this study. The design choice enabled opportunities to gain in-depth understanding of this subject that could not be achieved with a single research method of quantitative or qualitative research (Kelle, 2008; Tashakkori & Teddlie, 2010). Following an explanatory sequential design—as depicted in Figure 4 below, adapted from Creswell (2015)—this research was conducted in two phases.



**Figure 4: Explanatory Sequential Design**

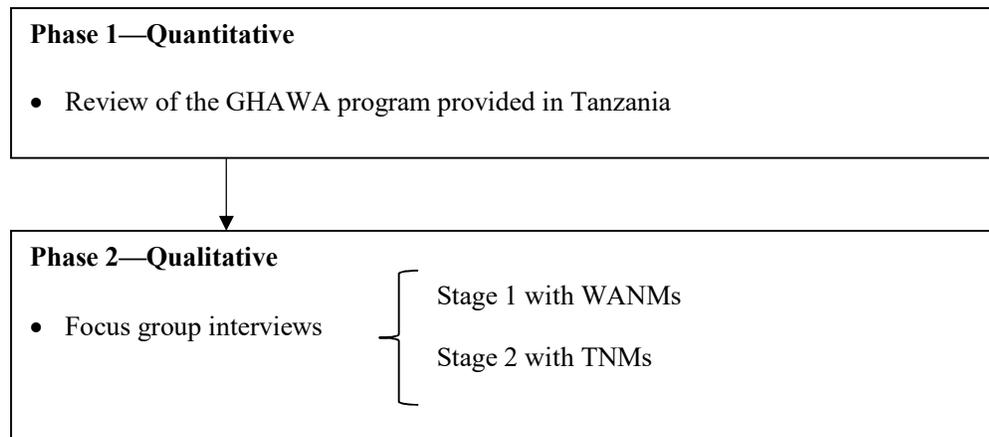
The benefit of this design allowed the researcher to measure the size of the GHAWA education program delivered in Tanzania, and ask questions such as: How many people are involved in the program? Where are the programs conducted? Where are the participants located? The findings from this initial phase then led to asking open-ended research questions with the relevant people about the effectiveness or ineffectiveness of CPD for TNMs, and the barriers and enablers for these NMs.

In chronological order, the role of the quantitative phase was to review the overall program following one year of CE provided by WANMs in Tanzania, between January and December 2013. This was carried out to ascertain the distribution of education programs and the groups and numbers of NMs involved with GHAWA during this period. The identified information then informed the next phase of the study, where the researcher was able to conduct focus group interviews with relevant participants using qualitative methods.

Due to the location of the participants, based in different countries and in order to obtain distinct information from each cohort, the qualitative phase was divided into two stages which enabled focus group interviews with nurses and midwives from WA and Tanzania. The WA cohort was identified as comprising the education facilitators of the program, while the Tanzanian cohort comprised of attendees who participated in the education. This strategy enabled the identification of education facilitators' and attendees' separate perceptions of CPD, their experiences and the effectiveness of the program. The same questions were asked of both cohorts. The objective was also to determine the barriers and enablers of providing CPD opportunities in Tanzania, and whether the development of knowledge sharing occurred among Tanzanian peers.

In addition to focus group interviews, the research participants were offered the opportunity for one-on-one interviews in the event of being unable to attend the dates set

for the focus group interviews, or if they wished to be interviewed individually. Figure 5 illustrates the design of this research.



**Figure 5: Research Design**

The combination of two methodological approaches is seen as combining the strengths of quantitative and qualitative methods (Kelle, 2008; Tashakkori & Teddlie, 2010; Thurmond, 2001). The following sections describe each research method applied in the context of this study—quantitative and qualitative research.

### 3.4 Quantitative Research

The focus of quantitative research is the collection and interpretation of statistics (Ingham-Broomfield, 2014), which involves researching groups using statistical calculation techniques—such as the computer package, SPSS—to manage data and identify sample size (Gerrish & Lacey, 2010). Creswell (2015) stated that this provides closed-ended data and variables to facilitate research findings.

One of the key advantages of this research method is that it handles and analyses statistics efficiently. This approach was used in phase one of the research study, where the researcher employed SPSS to manage the quantitative data in a systematic manner. A measurement of the research sample size was made possible, which further enabled the process of grouping the cohorts and the types of education programs offered by GHAWA, including the sites where it was delivered in Dar es Salaam. To ensure a rigorous quantitative method, Creswell (2015) suggested that the data collection should help identify the research site, the number of participants, and how the participants will be recruited to the study. Thus, the approach describes the situation in a numerical form and

provides a summary of the data (Clarke & Collier, 2015). However, it does not record words or gather verbal data, and has limitations around understanding the views of research participants, as provided by qualitative research (Creswell, 2015). Thus, to help unpack the complimentary research questions, the subsequent phase of this study used a qualitative method to enable further investigation.

### **3.5 Qualitative Research**

Qualitative research involves evaluating and comparing interventions (Gerrish & Lacey, 2010) in a subjective manner, where the views and experiences of the research participants are analysed (Keele, 2011). To learn from the participants of this study, the researcher began by posing general open-ended questions that allowed individuals to answer questions and provide information without constraints (Creswell, 2015). In addition, in alignment with the naturalist paradigm, participants were recruited and studied in their natural setting (Jirojwong et al., 2014; Keele, 2011).

The advantage of qualitative research allows participants' experiences to be understood (Creswell, 2015). In the context of this study, this method captured the participants' voices and views of CPD in Tanzania. Blending the two paradigms and methods to conduct mixed-methods research gave the researcher the ability to examine the effectiveness of CPD from the perspectives of the WA and Dar es Salaam NMs. Triangulation was used to overcome biases and compensate for any weaknesses that derive from using a single research method (Waltz, Strickland, & Lenz, 2010).

### **3.6 Triangulation**

When investigating any research problem, researchers have emphasised the importance of triangulation—the process of using more than one approach during research (Heale & Forbes, 2013; Keele, 2011). Triangulation is a critical strategy used to provide stronger and more reliable research evidence. It also enhances the validity of findings (Waltz et al., 2010) and increases confidence in the research (Heale & Forbes, 2013). Triangulation combines methodologies that use different approaches to provide better answers to the research questions (Turner et al., 2017). It also decreases the research bias that is inherent in a single methodology (Williamson, 2005) and strengthens the outcomes of a study (Bekhet & Zauszniewski, 2012). This generates a broader understanding, enables better

knowledge to be gained about a research question, and helps give a more complete view of the matter under study (Waltz et al., 2010).

To increase the validity of a study that reflects the truth of what is being studied, triangulation can be undertaken in several ways (Sarantakos, 2013; Thurmond, 2001). According to Wilson (2016), the four types of triangulation are as follows:

- data triangulation, which uses different data sources and analysis methods
- investigator triangulation, which employs more than one researcher during the process of data gathering and data analysis
- theory triangulation, which is undertaken by applying multiple theories
- methodological triangulation, which involves gathering data through the means of more than one method.

In this research, two different types of triangulation were used: methodological and data-analysis triangulation. These methods involved collecting data using quantitative and qualitative methods in an attempt to decrease the biases of each method, and using multiple methods to analyse and validate the same set of data (Waltz et al., 2010).

### **3.6.1 Methodological Triangulation**

Methodological triangulation uses more than one research method to study phenomena, and, within this context, there are two types of methodological triangulation that can be used: ‘within-method’ and ‘across-method’ (Bekhet & Zauszniewski, 2012; Waltz et al., 2010). The within-method type employs a multidimensional approach that studies a phenomena using two or more data-collection procedures from the same design method—either quantitative or qualitative, but not both (Waltz et al., 2010). The across-method type mixes quantitative and qualitative data-collection techniques. Rossman and Wilson (1985, as cited in Waltz et al., 2010) described this as providing one kind of data (quantitative) to expand the findings of another (qualitative). This approach gives perspective to the phenomenon and adds credibility to the findings.

In this study, the researcher used the across-method approach to triangulate the data collected from phases one and two, by including both quantitative and qualitative methods. The information obtained from phase one was displayed in numerical form as a summary detailing the outcomes of the overall education program delivered in 2013. With

these data and by further employing qualitative methods, such as focus groups and interviews with the WA and Tanzanian cohorts, the study attained the research participants' views regarding CPD. The data collected were then analysed, allowing expansion and better understanding of the findings from phase one, which gave richer and more credible insight into the study. Methodological triangulation enables the gathering of meaningful information that would otherwise be undiscovered with the use of only one data collection technique (Thurmond, 2001), and the approach was well supported in the case of this study.

### **3.6.2 Data-analysis Triangulation**

The use of multiple approaches to review and analyse data is referred to as data-analysis triangulation (Waltz et al., 2010). Lauri (2011) argued that this technique increases the reliability of the findings. The goal is to use different sources of information and examine the data in different ways (Tashakkori & Teddlie, 2010). In this study, data were collected from different groups at their different employment locations to enable data-analysis triangulation. The participants included NMs from WA who went to Tanzania as education facilitators, and NMs from various organisations in Dar es Salaam who attended the GHAWA education programs.

During phase two of the study, dialogues from the one-on-one and focus group interviews were analysed as discrete data based on each cohort's description, and later compared to determine areas of convergence and divergence. For example, interviews conducted in WA were undertaken initially, and the findings were transcribed and then analysed accordingly, searching for themes using NVivo—qualitative software. At a later time, upon conducting focus group interviews in Dar es Salaam with the relevant Tanzanian cohort, the information was also transcribed into textual data for analysis using NVivo. Both sets of information were analysed separately, looking for themes within each cohort. Separating the focus groups and analysing them independently, before comparing the two, provided a clear sense of the NMs' views of CPD in Tanzania. Thematic analysis of the results revealed similar themes, which supported the validity of the study. The triangulated data provided a deeper understanding of the issue and established rigour in the study, thereby enhancing the research findings' trustworthiness and reliability.

### **3.7 Rigour**

It is well documented in the literature that the core of all research is to ensure its rigour. If not, studies are unreliable (Bekhet & Zauszniewski, 2012; De Chesnay, 2015; Lauri, 2011; Waltz et al., 2010). Rigour is a methodological process that defines data accuracy and reflects the truth as the participants see it (De Chesnay, 2015). Rigour is sometimes referred to as a quality-control measure for research (LaHer, 2016). Claydon (2015) stated that, to ensure confidence in the final research product, the quality and design of the study is critical. The process of rigour is approached differently in quantitative and qualitative studies. According to Creswell (2015), rigorous procedures for both components are critical in good mixed-methods studies.

Quantitative studies strive to pursue validity and reliability in the data findings (Sarantakos, 2013; Sharts-Hopko, 2002). In contrast, qualitative studies that reveal accurate, credible and trustworthy findings ensure rigour (Golafshani, 2003; Thomas & Magilvy, 2011). Qualitative research pioneers, Lincoln and Guba (1985), purported credibility, transferability, dependability and confirmability as the four components of trustworthiness to maintain rigour (Prion & Adamson, 2014; Sharts-Hopko, 2002; Thomas & Magilvy, 2011). In this study, these processes were established accordingly, and examples of rigour testing are described under each phase of the study listed below. Central to this, the novice researcher also sought guidance from the research supervisors to assist in ensuring a rigorous process was maintained.

#### **3.7.1 Phase One: Quantitative**

##### *3.7.1.1 Validity and Reliability*

The statistics and information obtained were collected by GHAWA and uploaded when sessions occurred. These data were not available to be used by any other person unrelated to the program, and are made publically available in GHAWA reports. As a result of this availability of information on the public database, there was no need to test this information for validity and reliability. To ensure accurate data were being collated, several discussions occurred with the supervisors, one of whom was involved in planning the CE delivery for the TNMs.

### **3.7.2 Phase Two: Qualitative**

#### *3.7.2.1 Credibility*

Credibility is defined as the truth of the findings that represents a correct interpretation of the participants' views (Cope, 2014; Neuman, 2005). To ensure credibility, this study used triangulation of data using methodological and data-analysis methods, as discussed earlier. Another example of establishing credibility is as follows. During the focus groups and interviews, the researcher (also the interviewer throughout this research) would sometimes clarify responses provided by the study participants to ensure that their views were correctly understood. An example comes from a comment during a focus group interview in Tanzania:

Researcher/Interviewer: So what you're saying is we have to have good planning, select a topic and teach others. It would also be helpful to get follow-up from an educator. Have I understood that correctly?

Participants: Yes.

This strategy was used to validate statements and confirm the interpretations. According to Prion and Adamson (2014), this is another method for ensuring credibility.

Moreover, all focus groups and interviews were digitally audio-recorded. Recordings with the WA cohort were transcribed by an external transcriber, and the majority of the recordings with the Tanzanian cohort (five out of six) were transcribed by the researcher. To establish data credibility, the researcher reviewed all the audio files, and then cross-checked the textual data transcribed by the transcription service, including those transcribed by the researcher. Transcripts were also reviewed by the research supervisors, before seeking themes that emerged from the data. The emerging themes were then discussed with the researcher's supervisors to attain an independent and objective view.

#### *3.7.2.2 Transferability*

Transferability is the applicability of the findings in a study to other populations in different settings (Prion & Adamson, 2014). In this study the notion of transferability is possible because the findings could be applicable to other parts of Tanzania and developing countries. By interviewing a wide range of NMs, the results of the study were

more applicable and transferable across the broader population in the country. Thus, this provides meaning to individuals not involved in the study, and readers can relate their own experiences to the results (Cope, 2014). The findings are transferable to other contexts, provided the contexts represent the same or similar situations.

### *3.7.2.3 Dependability*

Prion and Adamson (2014) identified the key element of dependability as having a thorough description of the research methodology. Dependability can be confirmed by being clear and specific in the description of the research purpose, and by following a research process whereby the method of the study is openly described, discussed and presented. This research followed a clear and detailed mixed-methods research design, described systematically in individual phases (see Figure 5).

To ensure rigour, all documentation was retained, such as the ethics approval, interview questions, information sheets, consent forms and records of the interviews. During the course of the study, the researcher also kept notes about how interviews were planned, any changes to interview dates, and the experiences of the interviews. The following figure presents an example of the notes kept for an interview.

focus group  
 20/11/15 - scheduled 11 am - Arr via Bosp. Exe: Director of Nursing  
 11:30 am.

location - maternity block.  
 participants - x6.

focus group  
 Remarks: interactive group.  
 positive outcome having attended camera  
 of teaching - giving/using GAWWA  
 materials to teach colleagues +  
 mothers.

Due to the busy wards - they cannot  
 always deliver or have time to  
 teach even though they have a plan.  
 or they do by their best.

+ staff to pt ratio } pt's comes  
 1 : 50 to 80 mothers } first.  
 1 : 100 babies. "prioritise".

+ve impact → demonstrates through  
 their improved practice - shoulder dystocia  
 obs emergency  
 able to identify dangerous S+S  
 ② improved confidence.

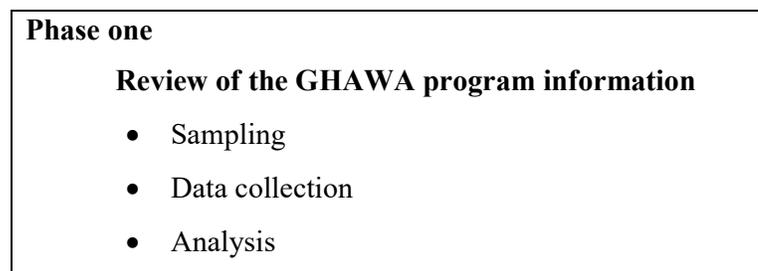
**Figure 6: Example of Interview Notes**

### 3.7.2.4 Confirmability

Confirmability is the absence of bias and assumptions in the researcher's view (Prion & Adamson, 2014). To ensure transparency, at the beginning of each interview, the researcher informed the research participants that the study was conducted for research purposes to evaluate the GHAWA program, and that the researcher (who was also the GHAWA program leader) was not operating in a manager's capacity. The participants were encouraged to be free with their views, and told there would be no repercussions for being honest and open in their opinions. Further, the researcher maintained awareness and a conscious effort to consistently follow, rather than lead, the focus groups and interviews. Findings with rich quotations from the participants that depicted each emerging theme were presented in the research report to ensure confirmability (Cope, 2014). This will be covered in more detail in Section 3.9.

### 3.8 Phase One Methodology

This section details a review of the GHAWA program information through appropriate sampling, data collection methods and analysis for phase one. This phase was undertaken in WA at the head office of GHAWA, where the program information was held. The data were collected by first examining the sample size and distribution of the program. This information was provided in multiple documents and spreadsheets, in a Microsoft Word and Excel format. To collate the information in an orderly manner, data were collected using SPSS—quantitative software. This helped the researcher manage the data before analysis could occur. Figure 7 presents a summary of the methodology applied during phase one.



**Figure 7: Phase One—Quantitative Research Method**

#### 3.8.1 Sampling—Phase One

The information for this study was obtained from GHAWA, specifically for the year 2013 because the concept of ‘train the trainer’ was not incorporated into the education sessions prior to 2013, and data were manually entered into SPSS. To carefully determine the sample of the study, the researcher needed to first understand who participated in the program, followed by determining the distribution of education facilitators and attendees, the participants’ employment positions, the type of education provided and where the education was delivered. This was achieved by framing the sampling process in a systematic manner, which enabled the researcher to delve deeper into the data.

The sample was segmented into two cohorts: WA and Tanzania. The process also identified that the WA cohort were the GHAWA education facilitators, and the Tanzanian cohort were the attendees. Cognisant of having to understand the perspective of CPD from the target population (NMs in this study), it was necessary to segment the data further to establish the positions of the program attendees, the type of education provided,

and the participating organisations in Tanzania where the attendees worked. As with an explanatory sequential design, this information eventually directed the researcher to invite the relevant participants from the relevant organisations to attend focus group interviews at a later time during the study.

### **3.8.2 Data Collection—Phase One**

The data collection for this phase of the study was undertaken retrospectively by extracting existing information from the GHAWA database. Curtis and Drennan (2013) purported that it is imperative to have a systematic process of collecting information, and to collect only variables that are required, using an instrument designed or adapted for the study. In other words, it is important to implement a data-gathering method to collect specific data that can help answer the research question.

GHAWA has been operating its program in Tanzania since 2010; thus, there is a large and diverse amount of data. However, education that involved ‘train the trainer’ and knowledge regarding how to provide clinical supervision was not established until 2013. This education was introduced by GHAWA to give TNMs the knowledge and skills to teach their fellow peers, so they can build the ability of local capacity to provide CPD. Given that this study’s purpose was to evaluate the effectiveness of CPD for TNMs who participated in the education programs offered by GHAWA, and to examine whether knowledge sharing continued, those who participated in 2013 were chosen for inclusion in this research.

To rigorously investigate this study, the researcher categorically went through the data to isolate the useful, available data (Curtis & Drennan, 2013). The researcher then developed criteria to gather relevant information to maintain a consistent method of data collection and research control, and to ensure that only the required data were extracted. The formulation of data-gathering questions and criteria developed for this study were as follows:

- the chosen year to study—that is, the year 2013 only (all data outside of this period were excluded)
- the country/location of the program
- the type of participants and what role they played in the program

- the participants’ employment position (whether they were nurses, midwives or other staff involved in the program) and the location of their employment
- the education courses and specifically where they were delivered in Tanzania.

The data were collected manually and entered into SPSS (Laerd Statistics, 2013). This electronic quantitative software enabled data preparation and management before proceeding to statistical analysis of the data. Using a systematic approach, Table 1 presents the layers, or parts, of information identified for data collection.

**Table 1: Parts Identified for Data Collection**

Part 1: Country Location and Region	<ul style="list-style-type: none"> <li>• Australia – WA</li> <li>• Tanzania – Dar es Salaam</li> </ul>
Part 2: Role in the Program	<ul style="list-style-type: none"> <li>• Facilitators</li> <li>• Attendees</li> </ul>
Part 3: Employment Position	<ul style="list-style-type: none"> <li>• Registered Nurse Only (RN)</li> <li>• Nurse Only – exact status unidentified (N)</li> <li>• Registered Nurse and Midwife (RNM)</li> <li>• Registered Midwife Only (RM)</li> <li>• Other Health Workers (OHW)</li> </ul>
Part 4: Courses Provided*	<ul style="list-style-type: none"> <li>• Course 1</li> <li>• Course 2</li> <li>• Course 3</li> </ul>
Part 5: Participating Organisation where courses delivered*	<ul style="list-style-type: none"> <li>• Organisation 1</li> <li>• Organisation 2</li> <li>• Organisation 3</li> <li>• Organisation 4</li> <li>• Organisation 5</li> <li>• Organisation 6</li> <li>• Organisation 7</li> <li>• Organisation 8</li> </ul>

\* See Appendix Q for description.

Importantly, during this process, codes were used to de-identify the people who participated in the program. Table 2 presents an example of the codes.

**Table 2: Coding Examples**

Identity markers	<ul style="list-style-type: none"> <li>• A = Attendee + number</li> <li>• P = Presenter + number</li> </ul>
Employment position	<ul style="list-style-type: none"> <li>• D1 = Registered Nurse and Nurse Only</li> <li>• D2 = Registered Nurse and Midwife</li> <li>• D3 = Registered Midwife Only</li> <li>• D4 = Other Health Workers, including unknown</li> </ul>

To uphold research control and confidentiality, coding was used so that the participants' names could not be identified by anyone other than the researcher. The collection of data in phase one was straightforward, with no interruptions. The following section discusses the next step of the data analysis.

### **3.8.3 Data Analysis—Phase One**

The information obtained from GHAWA was not originally gathered by the researcher; thus, the data were secondary in nature. According to Curtis and Drennan (2013), secondary data analysis should be approached the same way as primary data, whereby its quality should be ensured. The main datasets provided by GHAWA were kept separate, and the data entered into SPSS were cross-checked with the original datasets to verify accuracy, before attempting data analysis. To make the dataset more manageable, a list of categorical variables (for example, including missing or unknown variables) was created by giving a code to each category. When all the information was entered in SPSS, the tabulated data were analysed using the software. A summary of the sample and measures were then presented in simple tables—also known as descriptive statistics. This meant that the long list of raw data was condensed to show the results of the data collection and variables in a summarised statistical format. For example, in Table 3, the data show that, in 2013, a total of 12 facilitators travelled from WA to provide education in Tanzania; that all facilitators were nurses, midwives or had dual registration; that three types of education were provided; and that a total of 12 courses were delivered that year. Thus, discussion of the results through statistical commentary was made possible (Laerd Statistics, 2013; Trochim, 2006).

**Table 3: Example of Summary of Program Education Facilitators**

Summary for Education Facilitators – GHAWA Program 2013 (Total)	
Number of facilitators (i.e. WA cohort)	12
Facilitators' designations/positions	RN only = 7 RN and Midwife = 4 RM only = 1 Other Health Workers = 0
Type of course/education provided	3
Number of course/education provided	12

With the initial descriptive analysis now complete, cross-tabulation was undertaken to gain an in-depth analysis of the outputs and the relationships of the variate statistics. This was achieved using SPSS computer manipulation, which generated the findings in table and graph illustrations. This provided visual representations of the findings for phase one. Table 4 presents an example of this. Three types of education were delivered in 2013: the subject areas of acute and emergency care, midwifery and neonatal care, and clinical supervision. A total of 12 education facilitators were involved, comprising four facilitators who provided education in acute and emergency care, five for the midwifery and neonatal care courses, and three for the clinical supervision courses.

**Table 4: Distribution of Type of Education and Number of WANMs**

Name/Type of course/education provided in 2013	Number of WANMs (i.e. education facilitators) delivered CPD in 2013
Acute and Emergency Care Course	4
Midwifery and Neonatal Care Course	5
Clinical Supervision	3
Total	12

### 3.8.4 Summary—Phase One

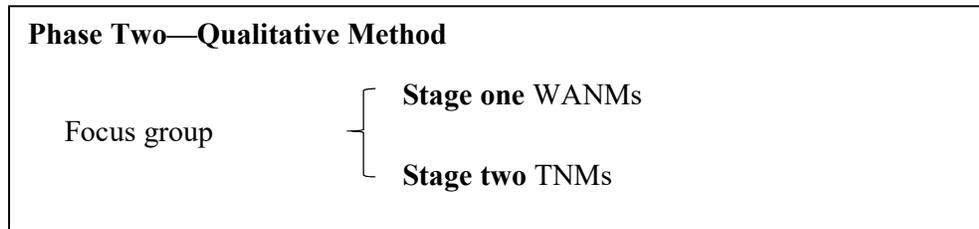
This section brings together details regarding the methodology for the quantitative phase of this study. Figure 8 presents a diagrammatic summary of the key processes used in phase one. The findings from this phase later informed the methodology employed for phase two.

<b>Phase One—Quantitative Research Method</b>	
<b>Review of the GHAWA program information</b>	
Sampling	Two cohorts 
Data Collection	<ul style="list-style-type: none"> <li>• Retrospective data collection with the use of data-gathering criteria</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• SPSS—quantitative software</li> <li>• Descriptive statistics</li> <li>• Cross-tabulation</li> </ul>

**Figure 8: Phase One Summary—Key Processes**

### 3.9 Phase Two Methodology

Phase two of this study was undertaken to ascertain the participants’ views of the CPD education provided by GHAWA in Tanzania. To achieve this, qualitative methods were employed by means of appropriate sampling, data collection and a data-analysis strategy. The outputs of phase one identified the two cohorts from separate countries: WA and Tanzania. Phase two involved focus groups and interviews, and was conducted in two stages. Stage one was undertaken in WA, while stage two was conducted in Tanzania (Figure 9). Accordingly, this section describes the processes completed for both stages.



**Figure 9: Phase Two/Research Design**

### **3.9.1 Phase Two/Stage One**

#### *3.9.1.1 Sampling*

The data collected from phase one identified the location of the program, the role and employment positions of those involved, the type of courses, and where the courses were provided in Tanzania. The first stage of phase two focused on the WANMs, who were also the education facilitators of the program in 2013. They were experienced NMs who volunteered to deliver CPD by sharing their knowledge and skills on subject areas within their field of expertise. Based on the results from phase one, three types of CPD were delivered. These subjects encompassed maternal and neonatal care, acute and emergency care, and clinical supervision. The outputs also indicated the total number of WA participants involved that year, and the participants’ substantive employment. They worked at various public and private health services in WA. The data demonstrated that the majority came from the public sector, and these health services were part of the WA government administration.

GHAWA was administered from the Department of Health—specifically, the Nursing and Midwifery Office—where it also had the support of the Executive Nursing and Midwifery Directors of WA public health services, who gave staff the opportunity to participate in the program. In addition, the Chief Nursing and Midwifery Officer (CNMO)—who led the Nursing and Midwifery Office in the health department—regularly met with these executives at the WA Health Nursing and Midwifery Advisory Council (WAHNMAC) (Tamaliunas, personal communication, October 2015). The CNMO suggested that the researcher provide an out-of-session WAHNMAC discussion paper to gain their support and endorsement of this research.

It was planned in phase two/stage one of this study to use purposive sampling, where research participants were recruited from the pool of WANMs. Purposive sampling is the

deliberate targeting of key informants who can help provide rich information for the study (Suri, 2011). This sampling process allowed the researcher to target the specific group of WANMs who went to Tanzania with GHAWA in 2013. Random sampling was not appropriate for the study because the study was from the perspective of NMs who delivered the education and NMs who received it. This group of nurses had to be able to describe their experiences of delivering and receiving CPD so they had to be purposively selected.

The intention was to conduct focus group interviews with the target group using open-ended questions in a semi-structured manner. Acknowledging the CNMO's recommendation highlighted earlier, the researcher wrote to the Executive Nursing and Midwifery Directors via the WAHNMAC, requesting their endorsement of the study and permission to recruit relevant staff from their respective health services to participate in this study (Appendix C). Their support was received, and the 12 WANMs who participated with GHAWA in 2013 were invited to take part in focus group interviews.

The initial plans were to conduct two focus group interviews, consisting of up to six participants at a time. The final number of participants for each cohort was anticipated to be between six and 12—a number considered optimum for focus group interviews (Bloor, Frankland, Thomas, & Robson, 2001; Morse, 2010). However, the researcher was mindful that the information accessed from GHAWA was retrospectively collected (during phase one) and that the participants' contacts may have changed in the intervening years. Nonetheless, the researcher attempted to connect with the participants using the available contacts. An information sheet (Appendix G) specifying the research and consent form was provided via email, and six people consented to take part in the interviews.

To maximise participation, these individuals were invited to attend the focus groups and were given the opportunity to complete a one-on-one interview if the focus group timeframe was not convenient, or if they preferred to be interviewed individually. To enhance flexibility, they were given the option to meet at a mutually convenient location, interviewed by Skype or teleconference. Table 5 lists a sample of the schedule, including those who self-elected to participate in the focus groups and interviews.

**Table 5: Interview Schedule in WA**

Type of Interview	Number/Mode/Location	Location
Focus group one	Two participants attended in person Two participants attended via teleconference	Department of Health Two participants were outside of the WA metropolitan region, and connected via teleconference for this focus group interview
One-on-one interview one	One participant attended via teleconference	The participant was outside of the WA metropolitan region, and the researcher used the teleconference facility at the Department of Health to conduct the interview
One-on-one interview two	One participant attended in person	Department of Health

Participants who attended the focus groups interviews and one-on-one interviews in person felt that the Department of Health (located in the city of Perth) was a central meeting point. Two participants were living outside of the Perth metropolitan region, and opted to be interviewed via teleconference. This was arranged accordingly, and the researcher was able to use the department’s teleconference facility to conduct the interviews.

### *3.9.1.2 Data Collection*

A set of guiding questions was developed prior to conducting the focus group and one-on-one interviews. The questions were reviewed by two of the researcher’s supervisors. A trial interview was undertaken with an academic peer from WA, and refinements were made to the questions following the mock exercise. This helped ensure the questions were open-ended, with a clear focus on the study, bearing in mind that the emphasis was to ascertain the views of WANMs who delivered the GHAWA program in Tanzania. Prompting cues were also established in anticipation of clarifying the main questions being examined. For example, a main question was: ‘What do they [the TNMs] need to provide and implement professional development education sessions in their workplace?’ This question had prompts such as: ‘What do you think enables them to continue providing CPD education sessions in their own workplace?’ and ‘What do you think

prevents or stops them from being able to continue providing professional development education in their own workplace?'. After the questions were set, these were used consistently to guide the interviews. This enabled a standard questioning process with the recruited WANMs. The views of these participants could subsequently be explored (Creswell, 2015). The entire set of guiding questions is available in Appendix H.

At the start of the interview, the researcher clarified to all participating individuals the purpose of the study, and that permission to conduct this research has been granted from the University of Notre Dame Australia (UNDA) Human Research Ethics Committee (HREC) (Appendix B). Participants were informed that data would be collected in the form of digital audio recordings. These recordings would then be transcribed and analysed. Their confidentiality would be maintained throughout this study, and there would be no repercussions should anyone choose to withdraw at any time during the interview. The researcher, further, ensured that verbal and written consent was completed and received during this period.

Focus group one (as per the schedule sample in Table 5) was held at the Department of Health and consisted of four participants, two of whom attended in person and two of whom joined the interview via teleconference. The interview flowed well; however, it was difficult to gauge the body language of those participating via teleconference. Thus, at every opportunity, when those participating in person had given their opinions, the researcher would give the teleconference participants the opportunity to contribute their thoughts. The one-on-one interviews ran smoothly, including those attending in person and teleconference. The focus during each interview was only on one person; thus, there were no interruptions. The researcher made further notes at the end of each interview as a way of journaling thoughts about how the interview went and general themes that surfaced at the time.

On completion of the focus group and one-on-one interviews, a professional transcriber was engaged to transcribe the data collected via digital audio recordings. The participants' confidentiality was maintained by ensuring the transcriber signed a transcription privacy release form. The information documented in Microsoft Word format was provided to the researcher, who then cross-checked the data by listening to the recordings and revising the textual data transcribed by the transcription service. This was undertaken to ensure accuracy and data credibility. Following this, the data were analysed using the qualitative

data analysis software, NVivo 10 (Bazeley, 2007). This is discussed in the following section.

### *3.9.1.3 Data Analysis*

The focus group and one-on-one interviews during this first stage of phase two generated a large amount of narrative materials—that is, qualitative data. Thus, it was necessary to implement a procedure to break down the whole text into small units of content that were manageable for analysis (Vaismoradi, Turunen, & Bondas, 2013). This process also included checking the data to ensure accuracy, reading the content several times, writing notes and developing themes that captured the views of the participants (Creswell, 2015).

Content analysis and thematic analysis are two common approaches used to conduct qualitative studies in nursing research (Vaismoradi et al., 2013). Content analysis involves a systematic approach to preparing data, categorising textual information to interpret meaning and themes, and reporting on the results—including the quantitative counts of the codes (Elo & Kyngas, 2008; Vaismoradi et al., 2013). Thematic analysis is similar to content analysis, as it also analyses and reports on the pattern or themes identified within the data; however, it does not count the frequency of codes identified, but purely examines the details of the qualitative data and its degree of interpretation (Braun & Clarke, 2006). Thematic analysis is a qualitative analytical method for analysing, categorising and reporting themes within data (Braun & Clarke, 2006). It also helps describe specific areas of the research questions, searching for themes and reviewing the themes until the researcher can no longer see any new information within the data (Walker, 2012). Thematic analysis requires thorough data familiarisation so that initial codes can be generated. In the current study, the researcher looked for themes and continued to review the themes to refine the characteristics of each theme. This thorough analysis produced compelling examples that related back to the research question and the study (Vaismoradi et al., 2013).

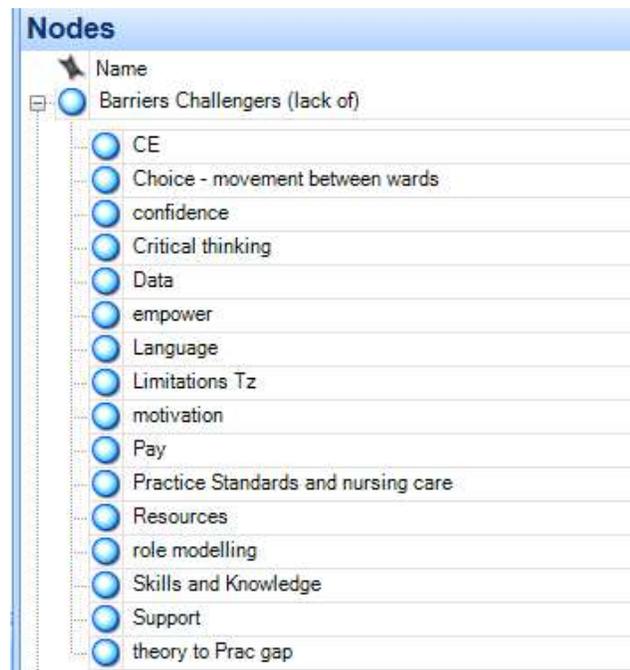
The first exercise of creating a long list of emerging nodes was logged with explicit quotations within NVivo. The researcher then reviewed these themes again, and started to generate subthemes. These subthemes were then categorised under broader themes or headings. This arduous process permitted the initial themes to be refined and compressed, and a deeper observation of the participants' views further emerged. It displayed specific

issues that influenced their response to the main research question, thereby allowing their experience to be well understood without bias (Daly & Lumley, 2002). Considering that this research sought to examine the effectiveness of CPD in Tanzania, and its barriers and enablers for continuing into the future, thematic data analysis was chosen as the approach to analyse the rich data gained from the focus group and one-on-one interviews.

The NVivo software was used to help structure and arrange the documents prior to performing data analysis. This process took a while, as the researcher was new to using the program, and tutorials were required to learn to use it effectively. After becoming familiar with the qualitative software package, it became easier to make useful and manageable data records (Bazeley, 2007). For example, the length of time for all interviews was approximately 40 minutes to 1.5 hours. This generated a significant amount of qualitative data records, which was challenging to manage. There were a minimum of 27 pages for one interview, and up to 50 pages for the focus group interviews. With the use of NVivo, structuring and managing the overall data was made easier. The entire data source of transcripts was imported into NVivo, which enabled codes (or nodes in NVivo) to be created and grouped while reviewing the data numerous times for themes.

The initial themes that emerged were relatively large, generating a long list of nodes. These were summarised into an overall tree map, and then discussed with the researcher's supervisor to attain an independent and objective view. They were then compressed by re-reading the notes taken during the interviews, and grouping similar contexts under several generic nodes with relating sub-nodes. For instance, under Question 4 ('What is needed to provide and implement CPD in the Tanzania workplace?'), the responses highlighted factors that were linked to the 'enablers' and 'barriers' of providing CPD in Tanzania, both of which were observed as broad or overarching nodes. The responses to this question included comments such as: 'they need support to be able to make the change' (focus group one), 'heavy workloads' (focus group one) and 'resources of time, resources of people ... if you've got 30 babies to look after and you are the only person ... it's very difficult to do more' (one-on-one interview two). These comments became sub-nodes or subthemes titled 'support' and 'resources' created under the main 'barriers' node. The context of data meticulously examined gave depth and understanding to the

particular circumstance (Vaismoradi et al., 2013). Figure 10 presents examples of sub-nodes listed using NVivo.



**Figure 10: Example of Sub-nodes Categories using NVivo**

#### *3.9.1.4 Summary—Phase Two/Stage One*

Section 3.9.1 has outlined the steps undertaken to gather data and analyse the study conducted with the WANMs. Figure 11 summarises this first stage of the qualitative phase. The process enabled the views of this group to be identified in a thematic manner. This led to a subsequent process of conducting focus groups interviews with the Tanzanian cohort, so that a comparison of their experiences and views could later be determined.

<b>Phase Two/Stage One—Qualitative Method</b>	
<b>Interviews with WA cohort</b>	
Sampling	<ul style="list-style-type: none"> <li>• Purposive sampling <ul style="list-style-type: none"> <li>○ WANMs previously participated with GHAWA in 2013</li> <li>○ Total of six consented to participate in study</li> </ul> </li> </ul>
Data Collection	<ul style="list-style-type: none"> <li>• Focus group and one-on-one interviews <ul style="list-style-type: none"> <li>○ Digitally audio-recorded</li> <li>○ Externally transcribed</li> </ul> </li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• Thematic analysis</li> <li>• NVivo 10</li> </ul>

**Figure 11: Phase Two/Stage One—Key Processes**

### 3.9.2 Phase Two/Stage Two

#### 3.9.2.1 Sampling

Stage two of the qualitative phase focused on the TNMs. As discussed earlier, the outputs of phase one informed the methodology process for this second phase and stage of the study. The findings (Table 6) revealed that there were 149 education attendees, comprising NMs and other local staff. They came from eight different organisations in Dar es Salaam, and attended the three types of CPD education delivered that year: maternal and neonatal care, acute and emergency care, and clinical supervision.

**Table 6: Summary of GHAWA Program Attendees in 2013**

Summary of Attendees—GHAWA Program 2013 (Total)	
Number of attendees (Tanzania cohort)	149
Number of organisations where attendees worked	8
Type of education attended	3

The researcher initially intended to target the specific NMs who attended the CPD that year; however, the available dataset from GHAWA did not include specific details, such as participants' contacts. Coupled with the findings from stage one (the focus group and interviews with WANMs), the data highlighted that NMs from Tanzania were regularly

required to rotate through working at different wards within their hospitals. For example, ‘there is a lot of movement and lack of choice of movement that they get exposed to’ (focus group interview one) and ‘the nurses in many of the hospitals that we were training actually rotated through constantly’ (one-on-one interview two). This posed challenges to pinpoint the key informants (specific TNMs); thus, purposive sampling was not possible.

Consequently, convenience sampling had to be used. This method of sampling identifies people who are conveniently available to participate in a study for a specific purpose. In other words, the technique relies on attaining participants who fit the criteria of the study and are conveniently available to participate (Emerson, 2015; Saunders, Lewis, & Thornhill, 2012). The researcher in this case had to travel to Dar es Salaam to conduct focus group interviews within a fixed timeframe of one week. Saunders et al. (2012) purported that such a sampling approach and collection of data can be facilitated in a short duration. Thus, convenience sampling was selected as the most appropriate sampling approach for stage two of this study.

This study developed inclusion criteria to ensure that the right sample of participants was invited and to gain a rich understanding of CPD delivered by GHAWA, including its progress and outcomes. The initial intention was to conduct focus groups with specific NMs who had attended education involving ‘training the trainer’. As identified in stage one, aspects of ‘train the trainer’ concepts were incorporated into some of the three courses delivered in 2013; however, specific details regarding the attendees were unknown. As such, the criteria to participate in stage two of this study included participants who had previously attended education programs delivered by GHAWA, especially those from 2013, where possible. The researcher wrote to all eight organisations and enlisted assistance from the respective nursing directors and hospital administrators to invite NMs who fitted the inclusion criteria from within their organisation to participate in the focus groups. For convenience and to be consistent with this sampling technique, the researcher offered to conduct interviews onsite at their respective hospitals during a suitable time identified by the Heads of Department, when the majority of NMs could participate. A schedule of focus group interviews over a period of one week was then devised by the researcher. Appendix P lists the organisations where CPD was provided by GHAWA and where interviews were conducted.

With support from the relevant organisations and through a convenience sampling process, a total sample size of 33 NMs consented to participate in focus group interviews. Organisation three was closed during the time when the researcher was in Dar es Salaam to conduct the interviews, and the head of this organisation indicated that they were unable to provide staff to attend the focus group interviews. Consequently, there were no participants available from this location. The timings of the focus groups were structured in way that allowed those who consented to, attend the interviews at a time that was convenient for them; either during their work time, shift change or over period and days off, who were able to come specifically for the focus groups. The number of participants at each location was anticipated to be between six and 12—a number considered optimum (Bloor et al., 2001; Morse, 2010), as per the previous stage. However, to encompass participants who fit the inclusion criteria and were available at the scheduled time, it was not always possible to obtain the minimum number of six for each group. While the organisations were engaging with and supportive of the study, the hospitals were busy and, on some occasions, the researcher had to wait up to 45 minutes to gather a small group of people. In addition, to maximise the sample size, one interview had a mixed group of participants from different organisations who worked in the same location. For example, organisations four and five were located in the same building. As such, NMs from both organisations were invited to attend a focus group interview together, making a total of nine participants in this instance.

The sample of participants identified were TNMs who attended one or more CPD education sessions provided by GHAWA, between January 2013 and December 2015 (when the interviews were conducted). It was established that all participants during this stage of the study had attended CPD provided by GHAWA.

### *3.9.2.2 Data Collection*

This study obtained a permit from the Tanzanian Commission for Science and Technology (COSTECH) to conduct research in Tanzania, prior to conducting the focus groups and collecting data. COSTECH is Tanzania's ethics assessment and registration body for foreigners undertaking research in the country. Ethical clearance was also sought and obtained from the Hubert Kairuki Memorial University (HKMU) Ethical Review Committee (ERC). During the application process, HKMU advised that a consent form in the Kiswahili and English language should be provided to the participants involved in

the study. While the TNMs were educated in English and had a good command of the English language, the primary spoken language in the country is Kiswahili. Thus, the researcher used Google Translate (Google, 2016)—a translation tool—to translate the English text to Kiswahili. The document was then provided to a Tanzanian teacher to check that the translation and grammar were appropriate. The document was provided to COSTECH and the HKMU ERC, who later approved the consent form for use (Appendix L).

The criteria of seeking NMs who previously attended education delivered by GHAWA enabled appropriate participants to voice their perceptions of CPD during the interviews. The researcher commenced each focus group by explaining the purpose of the study, declaring ethical clearance approval, and clarified any questions participants had after reading the information sheet. Consent forms were completed and returned to the researcher at the beginning of the focus group interviews. Participants were also informed that interviews and their expressed opinions would be recorded via a digital audio recorder. They were told that collection of verbal data would then be transcribed and analysed. As with stage one (interviews with the WANMs), the TNMs were assured of their confidentiality and protection throughout this study, and that there would be no ramifications for anyone who chose to withdraw from the study.

Ahead of conducting focus group interviews with the Tanzanian cohort, a set of guiding questions were developed. These questions were similar to those asked during the earlier stage of this study (phase two, stage one with the WANMs). Asking the same open-ended questions in a semi-structured manner stimulated responses and discussion among the group (McIntosh & Morse, 2015). Consequently, the experiences and views of the TNMs who attended the GHAWA program were explored and compared with the perceptions identified by the education facilitators (WANMs). Predetermined questions followed by the sub-questions or prompting cues used with the WA cohort were also asked of the Tanzanian cohort. This was developed initially to clarify the key questions being examined. However, the researcher found this cohort to be quiet and slow to start at the beginning of the interviews. Thus, the use of ‘probes’ enabled the researcher to engage and generate discussions with the participants. It was found that, once one person started talking, the rest became more forthcoming in the discussion. Thus, the reactions were consistent with the rationale for using semi-structured interview techniques (McIntosh &

Morse, 2015). The same set of questions was used consistently to guide the interviews. This enabled a systematic order of questioning in all focus group interviews with the recruited TNMs. Therefore, congruent with Creswell's (2015) opinion, the research participants' views were identified. See Appendix J for the set of guiding questions used during stage two.

### *3.9.2.3 Data Analysis*

In this second stage of the study, the researcher initially transcribed the data collected via digital audio recordings from the focus group interviews. As a result of the volume of interviews, the researcher needed to accelerate the pace of the transcription process, and later engaged an external transcriber who was able to complete one set of focus group interviews. The transcriber was required to sign an agreement to maintain the interview and participants' confidentiality. All the data were re-read several times, cross-checking transcripts with the recordings, and editing the transcripts for accuracy. This practice also enabled data familiarisation, where the researcher made brief notes in a separate notebook as themes emerged from the large amount of qualitative data. The transcriptions were then imported into NVivo, and a list of nodes was created during the initial analysis stage of the study. Thematic analysis was also used to find patterns of meaning across the data (Crowe, Inder, & Porter, 2015).

As with the thematic analysis described in stage one, the same process was applied during the second stage of the study. A broad list of themes was initially identified and reviewed several times to refine and generate subthemes. For example, throughout the interview, matters pertaining to the challenges that TNMs experienced in their workplace were notable: 'Lack of required equipment which will help us to provide the required and good services for our patients. Sometimes there is no suction machine or it is not working and we cannot provide the good care for patients' (stage two, focus group two). Issues such as limited access to basic resources reflected a sense of being 'beyond their control' and hindering their ability to practice at the optimum level. Thus, the analysis of data in this instance categorised the subtheme of 'resources' under the broader 'barriers' theme. The findings for this stage of the study are detailed in the subsequent chapter. These findings were later compared with the findings from the WANMs. This was done to enable a true representation of the findings from both cohorts and to thoroughly explore their

perspectives, giving a dynamic reality to this study about CPD in Tanzania. Chapter 5 presents the comparison of the findings, including a comparison with the literature.

#### 3.9.2.4 Summary—Phase Two/Stage Two

In summary, the researcher travelled to Tanzania to conduct focus group interviews for one week. Using convenience sampling, 33 NMs from seven sites consented to participate in the study. Data were collected via audio recordings, and transcribed, before importing the transcriptions into NVivo. The data were analysed using a thematic analysis approach. Figure 12 provides a diagrammatic summary of the sampling, data collection and data analysis undertaken during the second stage of this study.

<b>Phase Two/Stage Two—Qualitative Method</b>	
<b>Interviews with Tanzania cohort</b>	
Sampling	<ul style="list-style-type: none"> <li>• Convenience sampling               <ul style="list-style-type: none"> <li>○ Developed inclusion criteria: NMs who previously attended CPD provided by GHAWA</li> <li>○ Total 33 NMs from seven organisations consented to participate in study</li> </ul> </li> </ul>
Data Collection	<ul style="list-style-type: none"> <li>• Focus group and interviews               <ul style="list-style-type: none"> <li>○ Digital audio recording</li> <li>○ Transcribed by researcher and an external transcriber</li> </ul> </li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• Thematic analysis</li> <li>• NVivo 10</li> </ul>

**Figure 12: Phase Two/Stage Two—Key Processes**

### 3.10 Ethical Considerations

The Australian National Health and Medical Research Council (2016) stipulates that research undertaken in Australia must adhere to the principles and guidelines set out in the *2007 National Statement on Ethical Conduct in Human Research*. Ethical review committees and research participants are required to comply with these standards. Ethics considerations were upheld from the beginning of this study, and divided into sections that affected each step of the research methodology. These are addressed as follows.

### **3.10.1 Research Proposal**

Prior to research commencement, an application for low-risk review of a research project involving human participants was sought from the HREC at UNDA. As a result of the nature of the study being conducted with NMs in Tanzania, clarity was provided upfront, declaring that all potential participants participating in this study were experts and health professionals. Thus, while the Tanzanian research participants were from ‘other countries’—as described under the *2007 National Statement on Ethical Conduct in Human Research* by the Australian National Health and Medical Research Council (2016)—they were not considered a vulnerable population. As such, there were no foreseeable risks in the form of physical, psychological, social, economic or legal harm to the NMs participating in this study. Ethical clearance was approved in September 2014 (Appendix B).

### **3.10.2 Conducting Research in WA**

Permission to access the program information was then sought from the Nursing and Midwifery Office at the Department of Health, from where GHAWA was administered. The CNMO, who led the Nursing and Midwifery Office, stated that, while she supported and approved the study, it was advisable to check with the Department of Health’s Ethics Review Committee. The researcher followed suit and was advised that the study would not require ethics submission at the Department of Health, as it involved interviewing staff and did not require access to any patients’ data (Miller, personal communication, May 2015). This information was conveyed back to the CNMO, who later advised the researcher to inform and pursue support from the Nursing and Midwifery Executives of the WA public healthcare services. An out-of-session discussion paper was provided to WAHNMAC, and support to conduct the research was gained (Appendix C).

### **3.10.3 Conducting Research in Dar es Salaam, Tanzania**

Upon gaining approval from the HREC, the researcher proceeded to apply for ethics clearance in Tanzania, and received approval from COSTECH in August 2015 (Appendix

D). COSTECH (2014) is responsible for activities concerning research development in Tanzania, including the authorisation of research activity by foreign nationals.

In addition, the researcher sought support from HKMU (a private university that was a partner of GHAWA) and the Muhimbili University of Health and Allied Sciences (MUHAS—a public university in Dar es Salaam) to conduct the study. HKMU requested to review the proposal for ethical clearance, as the study involved interviewing their teaching and clinical staff. The researcher submitted an application, and gained ethical clearance soon after (Appendix E). MUHAS is one of the largest universities in Dar es Salaam that also provides training in nursing and midwifery. The intention for gaining support from MUHAS was a strategic move because the findings of this research could inform the university to aid the future development and sustainability of NMs' CE and professional development in Dar es Salaam, Tanzania. A letter acknowledging their support was also obtained (Appendix F).

#### **3.10.4 Research Participants**

Recruitment of participants was undertaken in a voluntary manner. The participants were fully informed from the start of the research, that they could withdraw from the interviews without repercussions, thereby upholding their autonomy to participate in the research. Written consent was obtained from the WA and Tanzania cohorts. The participants were also informed that the focus group interviews would be digitally recorded, transcribed, analysed, and later themed and categorised to understand the findings of this study.

Prior to engaging transcription services, the researcher ensured that a confidentiality agreement was signed and obtained. To further ensure confidentiality, all data transcribed were electronically stored and password protected to ensure information security. Access was only provided to authorised personnel. The consent forms, primary data and digital recordings of the focus group interviews are stored safely under lock and key by the researcher, and will be stored until they are destroyed five years after the completion of the research study (UNDA, 2007).

It is envisaged that the results of the research will be presented at State, National and International conferences, and published in appropriate journals. Any identifying markers—such as the names of individuals or hospitals in the focus group recordings—were removed from the transcriptions prior to data analysis. Participants were assured of

anonymity and complete confidentiality regarding their identity and contribution to the study. No participants withdrew from this study.

### **3.11 Summary**

This chapter has explained the research methodology used for this study, including its design and the manner in which data were collected and analysed. This study upheld ethical considerations specific to the research methods and participants throughout the research process. Quality research that demonstrates appropriate methods to achieve the research findings and indicates a thorough understanding of the matter being studied can influence decision makers through its recommendations (Toews et al., 2016). The findings of the research are detailed in the following chapter.